

Lab to host second annual LDRD Day September 8

September 2, 2010

Some of LANL's most innovative research on display to public

LOS ALAMOS, New Mexico, September 2, 2010—Some of Los Alamos National Laboratory's most innovative scientists will explain and present their cutting-edge work to the public on Wednesday, September 8, 2010, during LANL's second annual LDRD Day.

The event is scheduled from 8:30 a.m. to 3:30 p.m. at Buffalo Thunder Resort near Pojoaque, N.M. The event is free and open to the public, and provides an opportunity for people to see some of the most exciting research currently underway at the Laboratory.

This year's LDRD Day (LDRD stands for Laboratory-directed research and development) will feature 45 poster presentations on subjects ranging from biofuels development to space science. Four research focus areas will be represented: Energy Security, Nuclear Security, Global Security, and Scientific Discovery. Laboratory science leaders as well as former New Mexico Congresswoman Heather Wilson will also be giving talks throughout the day.

One example of how the Laboratory is addressing the nation's most complex problems in energy security can be seen in a Wind Turbine Project being conducted by Los Alamos scientists and engineers. Since one of the biggest issues facing wind power is its cost, LANL researchers are using computer modeling and engineering expertise to investigate more economical methods of harnessing the wind so its power can be transmitted to households across the nation.

Among other research highlights on display at LDRD Day, visitors can learn how scientists are using LANL's Roadrunner supercomputer—one of the fastest in the world—to create real-time models of the human visual cortex, the part of the brain that receives and processes visual information. By creating a real-time model of the mechanism of human sight, this project could ultimately lead to development of an artificial eye, or "seeing" machines, to perform specific, complex tasks.

The LDRD Program invests approximately 6 percent of the Laboratory's annual budget to fund potentially high-payoff research related to the Laboratory's central mission. LDRD allows LANL to invest in research that could help realize long-term scientific goals beneficial to the nation.

"At LDRD Day, we showcase some of the ideas being pursued by some of the leading scientists and engineers of the Laboratory," said LDRD Program Director William Priedhorsky. "What visitors will see is a small sample of LDRD, but enough to give a feel of the breadth and quality of scientific work underway at the Laboratory. The select research presented at LDRD Day will demonstrate how taxpayer dollars are used at the Laboratory to develop cutting-edge science and technology that benefits the nation."

More information about LDRD Day including schedules, a list of speakers, and registration for the event can be found on the <u>LDRD Day web site</u>.

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